

OBSERVATIONS ON PLATYGONUS COMPRESSUS  
LECONTE.

IN the museum of the University of Michigan there is a collection of bones of a fossil peccary, found in the peat-bog near Belding, Ionia county, Mich. The late Professor Alexander Winchell correctly identified the material as belonging to *Platygonus compressus*, first described by John L. Leconte (1848, 1848a). Professor Winchell published nothing on the subject, and there is now no record of the exact relations the bones had to each other when found.

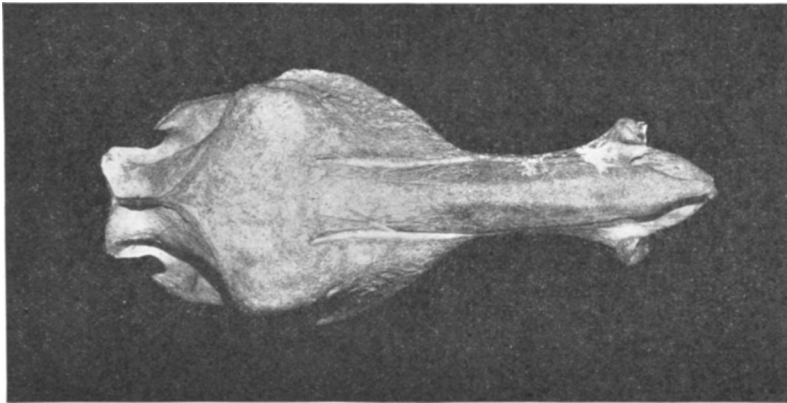


FIG. 1.—*Platygonus compressus* Lec. Skull of adult male, from above.

According to Professor Winchell's labels, five specimens are represented in the collection. One series, comprising a nearly complete skeleton, was by him referred to one individual; the only reason for doubting this collocation is that the skull seems to be of a male, while the sacrum agrees well with that referred by Williston to a female (1894, p. 36). In all probability the differences shown in the sacra figured by Williston are merely individual. The other bones of this series clearly belong together, and the bones are in excellent preservation. The other skeletons are represented by much less complete material.

The only skull in the collection is the one above mentioned, belonging to the nearly complete skeleton. It is that of an adult male, judging from the strong, protuberant flange of the mandible. All sutures are obliterated, and the teeth are much worn—the third premolars much more deeply so than the others. The prenasal ossification, figured by Williston (*loc. cit.*) in a similar skull is missing.

Because of the question of specific identity of the specimen with others, I give the measurements of this skull rather fully, as follows :

	mm
Length of skull from top of inion to end of nasals in median line	293
Length from anterior margin of foramen magnum to end of premaxillaries	260
Breadth of postorbital processes	109
Breadth of face at middle of zygomas	136
Breadth of face at lachrymal eminences	103
Height of supra-orbital margin from a level	107
Height of face at posterior end of infra-orbital foramen	82
Height of face at middle of canines	59
Width of face at first premolar	37
Width of face at canine alveoli	68
Width of premaxillaries	42
Depth of zygoma from end of postorbital process to end of preglenoid process	76
Depth of zygoma at middle below the orbit	39
Length of temporal fossæ from inion to postorbital process	85
Height of inion	93
Breadth of upper part of inion	59
Breadth at glenoid fossæ	118
Height of occipital foramen	21
Breadth of occipital foramen	21
Distance between the ends of the paroccipital processes	(?)58
Width between molars of the two sides	21
Length of upper molar series	78
Length of hiatus in advance of latter	44
Height of canine tuberosity	44
Length of mandible from condyle to symphysis	223
Height of mandible at condyle	85
Height of mandible at coronoid process	98
Depth of mandible below premolars	39
Depth obliquely at symphysis	79

Width at canine alveoli	- - - - -	40
Length of lower molar series	- - - - -	77
Length of hiatus in advance of latter	- - - - -	53
Transverse diameter of the condyle	- - - - -	26

In comparing this skull with those described by Williston from the Pleistocene of western Kansas, the following points of interest may be noted: In our specimen the diastema between the incisor and the canine of the mandible is five millimeters in length, as compared with eleven in the Kansas specimen. In the

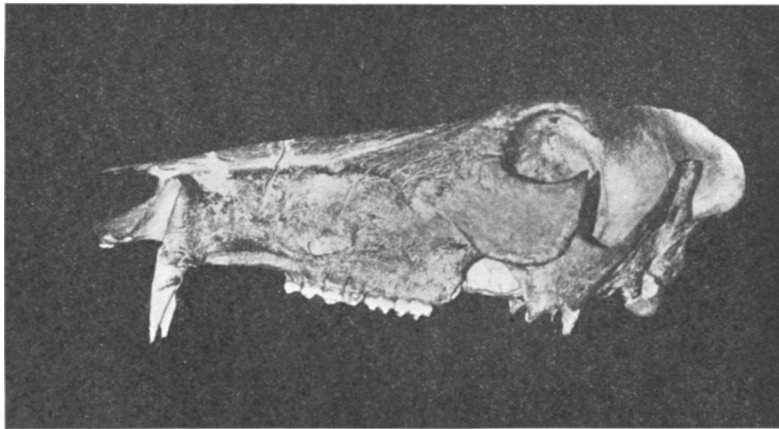


FIG. 2.—*Platygonus compressus* Lec. Skull of adult male, from the side.

specimen described by Leidy as the type of *Euchærus macrops* Williston supposed the diastema to be nearly absent, as indeed it seems from Leidy's figure in Plate XXXV. But a comparison of this figure with others of the same specimen on Plate XXXVI convinces me that the former is anything but accurate, and that the diastema is really very considerable. Our specimen further differs from the one described by Williston in having the peculiar asymmetrical *cul-de-sac* below the anterior margin of the nares, as described by Leidy for *Euchærus macrops*. Nothing is to be seen of fossæ above the infra-orbital foramen.

It will be seen that all our measurements fall well within the range of those given by Williston, and the same is true of other measurements not here given. A comparison of these, as also of

other characters of the various skulls so far figured, has convinced me that *P. leptorhinus* Williston is a synonym of *P. compressus*, as the author believed to be probable (1896, p. 303). There would seem to be little doubt that the differences given between these eastern and western specimens are merely individual. I am further convinced of this by Leidy's comments upon the variations in the skull of *Dicotyles torquatus* and by the differences shown in the dentition of specimens of *Dicotyles* and *Platygonus*.

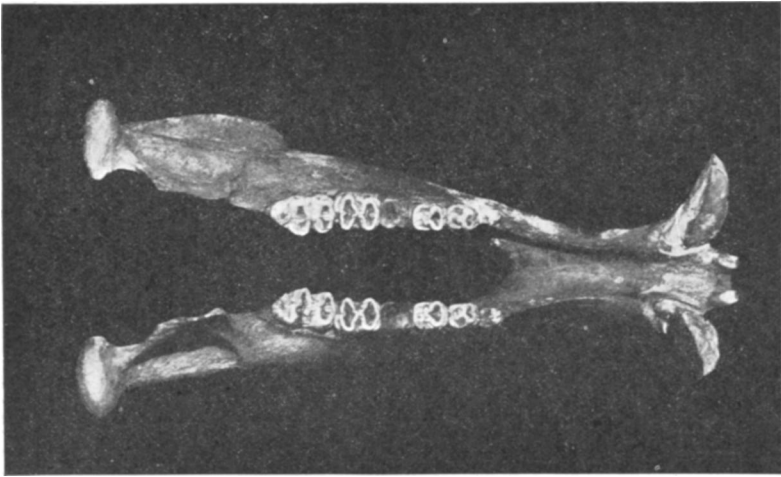


FIG. 3.—*Platygonus compressus* Lec. Lower jaw of adult male.

*Platygonus compressus*, therefore, seems to have had a very wide distribution during Pleistocene times in North America, ranging at least from New York to the extreme west of Kansas, and from Michigan to Mexico.

It will be of interest here to note some of the other related forms described from North America:

*Platygonus striatus* Marsh (1871). The type consists of portions of two lower jaws from the "Pliocene" (Pleistocene?) of Nebraska, with a few anterior teeth. The characters distinguishing this from *P. compressus* do not seem to be important.

*Platygonus condoni* Marsh (1871). The type consists of por-

tions of two maxillæ with three posterior molars, from the "Pliocene" (Pleistocene?) of Oregon. Cope and Wortman (1884) referred this to *Dicotyles*. The posterior molar is larger than in *P. compressus* (26<sup>mm</sup>).

*Platygonus rex* Marsh (1894). Based upon three lower teeth from the "Pliocene" of eastern Oregon. Gidley (1903) says "the horizon is almost certainly Upper Miocene." If so, there will be no question of the validity of the species. The last lower molar has a length of 27<sup>mm</sup>.

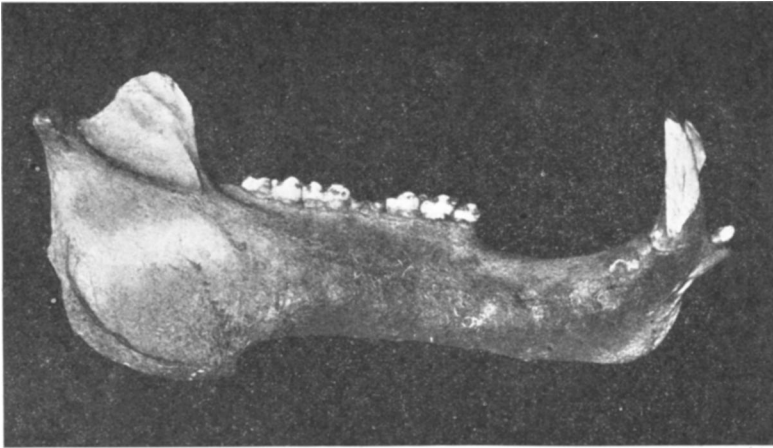


FIG. 4.—*Platygonus compressus* Lec. Lower of jaw adult male

In addition, other species referred to this genus have been described by Marsh (1871, *P. striatus*, Eocene of Wyoming), Cope (1894, *P. calcaratus*, Blanco beds of Texas), and Gidley (1903, *P. texanus*, Blanco Pliocene of Texas). In comparing *P. vetus* and *P. alemanii*, it is noticed that the two species, if they are distinct from each other, are of larger size than *P. compressus*, and they may represent a species distinct from the latter, with practically the same geographical distribution, and they were probably contemporaneous.

Some years ago Newberry (1875, p. 6) mentioned a lot of a dozen nearly complete specimens of *Platygonus compressus*, found within the city limits of Columbus, O., and belonging to the

Ohio Geological Survey. Professor Marsh was expected to write a report upon them, but none such has ever appeared. If these specimens have been preserved, a careful study of them, with especial reference to individual variations in connection with what has already been published, may be of much interest.

GEORGE WAGNER.

UNIVERSITY OF WISCONSIN.

#### BIBLIOGRAPHY.

COPE, E. D.

1893. "A Preliminary Report on the Vertebrate Palæontology of the Llano Estacado." (From the *Fourth Annual Report of the Geological Survey of Texas*), pp. 1-136, Plates I-XXIII.

COPE, E. D. AND WORTMAN, J. L.

1884. *Fourteenth Report, State Geologist of Indiana*, Part II, pp. 1-62, Plates I-VI.

DUGES, A.

1887. *La Naturaleza* (2), Vol. I, pp. 16-18, Plates I, II.

GIDLEY, J. W.

1903. *Bulletin of American Museum of Natural History*, Vol. XIX, p. 477.

LECONTE, J. L.

1848. *American Journal of Science* (2), Vol. V, pp. 102-6.

1848a *Memoirs of American Academy of Arts and Sciences*, Vol. III, pp. 257-74, Plates I-IV.

LEIDY, J.

1853. *Transactions of American Philosophical Society* (2), Vol. X, pp. 323-43, Plates XXXV-XXXVIII.

1857. *Ibid.* (2), Vol. XI, pp. 97-105, Plate VI.

1882. *Proceedings of Academy of Natural Sciences*, Philadelphia, 1882, pp. 301.

1889. *Annual Report of Geological Survey of Pennsylvania*, 1887, pp. 1-20, Plates I, II.

MARSH, O. C.

1871. *American Journal of Science* (3), Vol. II, pp. 35-44.

1894. *American Journal of Science* (3), Vol. XLVIII, p. 273.

NEWBERRY, J. S.

1875. *Report of Geological Survey of Ohio*, "Palæontology," Part II,

WILLISTON, S. W.

1894. *Kansas University Quarterly*, Vol. III, pp. 25-39, Plates VII, VIII.

1896. *University Geological Survey of Kansas*, Vol. II.